

THE UNIVERSITY OF WISCONSIN  
COLLEGE OF AGRICULTURE

Madison 6

DEPARTMENT OF GENETICS

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Dr. Seymour Pomper  
Fleischmann Laboratories  
Stamford, Conn.

Dear Sy:

I had hoped to be able to spare you a second request, but we have been struggling with the cultures you were kind enough to send, and have not been able to use them for our purposes. There are two difficulties: the growth of the auxotrophs has been very scanty indeed on defined media, and the D/d character while useful for an additional marker makes certain of our experiments impossible. May I make a supplementary appeal to you for the following:

- 1) a prototrophic, disperse,  $\alpha$
- 2) Two, monoauxotroph (e.g. meth; trypt), disperse, a and  $\alpha$ .

I've not been able to get a satisfactory nutritional rundown on either 62-20-194 or 67-1, and wonder if their requirements might have changed. Our vitamin mix includes thiamin, pant, nic, B6, pab and biotin, and the minimal medium supports the prototrophs very nicely. But the auxotrophs did very poorly on supplements of trypt+ uracil and meth+ adenine respectively, much better on hydrolyzed yeast nucleic acid. 67-1 in fact responded rather well to methionine + DPN, but as this was rather an impure preparation, there may be nothing in it. At any rate, the markers are unfortunately unsuitable for us. Can you help us out? [As I mentioned earlier, to be of any use to Rubbo, we'd have to have these cultures fairly soon. We are setting out to make some more auxotrophs on our own, but would like at least to have the two auxotroph mating types as reference cultures]. An additional puzzle was the rather poor yield of prototrophs from 62-20-194 x 67-1 on minimal medium, but we may not have hit the best conditions and the clumpiness also interfered with a good experiment. Also, the hybrids we did get have refused to sporulate, although fresh yeast (Red Star) did quite well on acetate or gypsum.

Have you any tips on breaking the asci? Can you use a capillary (in deFonbrune oil chamber) for this purpose. This does so well for bacteria.

I'm sorry to be a pain in the neck when you must still be preoccupied with moving. If you can't help us out, let us know that too so we can plan acc'd'gly.

Yours,

*Joshua Lederberg*  
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